KENWOOD

AUDIO VIDEO SURROUND RECEIVER

VR-407 VR-406 VR-405 VR-414 KRF-V7030D KRF-V6030D KRF-V5030D KRF-V4530D

INSTRUCTION MANUAL

KENWOOD CORPORATION

This instruction manual is used to describe multiple models listed above. Model grafiability and features (functions) may differ depending on the country and sales seen.

About the sampled remain control (RC-86008)...

Compared to standard remote controls, the remote control supplied with this requirer has several operation tracks. These modes enable the remote control to control other audio/video components, in order to effectively use the remote control it is important to read the operating instructions and obtain a proper understanding of the remote control and how to switch its operation modes (etc.).

Using the remote control without completely understanding its dissign and how to switch the operation modes may result in incorrect operations.

Units are designed for operation as follows.

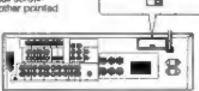
U.S.A. and Canada	AC	120 V	ersity
Australia	AC	240 V	CALLED
China and Russia	AC	220 V	only
*Other countries . AC 115-126 / 926-26			

* AC voltage pelection

The AC voltage selector switch on the rear penel is set to the voltage that prevails in the area to which the unit is shapped. Before connecting the power cord to your AC cultet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch

Move switch lever to metch your line voltage with a small scrawdriver or other pointed tool.



Hicte

Our warranty does not cover damage caused by excessive the voltage due to improper setting of the AC voltage selector switch.

Safety precautions

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.







CALITION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER FOR BACK, NO USER-SERVICEABLE PARTS IN-SIDE, REPER SERVICING TO QUALIFIED SERVICE PERSONNEL.



THE LIGHTNING FLASH WITH APPROWHEAD SYMBOL, WITHIN ANEQUILATERAL TRANSLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRI-ANGLE IS INTENDED TO ALERT THE USER TO THE PRES-ENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOM-PANYING THE APPLIANCE.

Ungacking

Unpack the unit carefully and make sure that all accessories are put celds no than will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is demaged or falls to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can life a claim against the center for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Keep this manual handy for future reference.

Accessories

FM indoor anteres: (1)

AM loop antenna (1)





For VR-40T, VR-40E, IORF-Y7030D, and KRIF-Y6030D

Remote control unit (1) RC-R0809 Butteries (P&/AA) (2)





For VR-406, VR-414, KRF-V9030D, and KRF-V4630D

Remote control unit (1) 90:90509 Bortories (R6/AA) (Z)





"AC plug adaptor (1)



*Use to adapt the plug on the power cord to the shape of the well outlet. /Accessory only for regions where use is necessary).

Microcomputer availuncties

For the U.S.A.

FCC WARNING

This accurrent may generate or use radio frequency energy. Changes or reddifications to this equipment may cause hamble trierference unless the modifications are expressly approved in the instruction remain. The user could lose the authority to operate this equipment if an unsufficiency of change or modification is made.

MOTE:

This equipment has been tegled and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Fules. These times are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause hereign interference to radio communications, if it is not installed and used in eccordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause transful interference to radio or television receptors, which can be determined by furthing the equipment off and on, the case is encouraged to try to correct the interference by one or more of the following threshules.

- -- Regreet or relocate the receiving artieress.
- - Increase the separation between the equipment and receiver.
- Connect the equipment into an outlist on a circuit different from that to which the requirer is connected.
- Consult the dealer or an experienced radio / TV technician for help.

For the U.S.A.

Note to CATV system installer:

This removier is provided to call the CATV system installer's attention to Article 820–40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



As an ENERGY STAR® Partner, Kerwood Corporation has determined that the products meets the ENERGY STAR® guidalines for energy efficiency.

This product can save anergy. Saving energy reduces air pollution and towars utility bills.

Maintenance of the unit

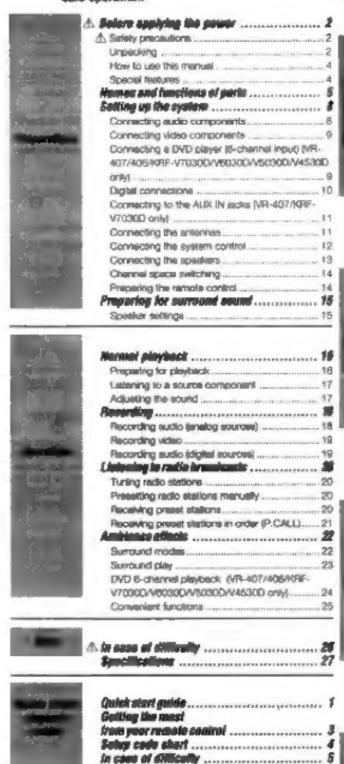
When the front panel or case becomes dirty, were with a soft, thy cloth. Do not use thinner, benzine, alcohol, etc. for these agents may cause discoloration.

in regard to contact cleaner

Do not use contact cleaners because it could cause a malfunction. Be specially careful not to use contact cleaners containing oil, for they may deform the pleatic component.

Contents

Caution : Read the pages marked . . oarefully to ensure sale operation.



Remote operation of other compensate.... 6

How to use this manual

The manual covers the VR-407, VR-406, VR-406, VR-414, KRF-V70300, KRF-V50300, KRF-V50300, and KRF-V45300. Items such as functions, number of golds, and remote control statels differ control between these models. To confirm the functions available on the model you have purchased, rater to the fable below.

	Remote		Terminal	
Model name	Control	Species out	WINEO II Jackin	Front input
VR-007 KRF-V78300	RC-Reset	(A, B)	Replicati	Equipped
VR-466 KRF-V80300	PIC-FREECE	2 systems (A, B)	Hot equipped	(that majority)
VP-406/414 KRF-VS000D/ V4530D	RC-Resos	1 system	Hot equipped	Net equipped

This manual is divided into four sections, Preparations, Operations, Other, and Remote Control.

Preparations

Shows you have to connect your audic end video components to the receiver and prepare the surround processor.

We we tried to make setting up your system as easy se possible. However, since this repeture works with all of your audio and video components, connecting the system can be fairly complex.

Caerableou

Shows you how to operate the various functions available from the receiver

Other

Shows you additional information such as "in case of difficulty" (troubleshooting) and "Specifications".

Remote Control (Separate basidet) (VR-407/VR-486/KRF-V70390/KRF-VR0300 enly)

Includes the "Quark Start Guals," which shows you how to operate other components using the remote control, as well as a detailed explanation of all remote control operations. Once you have registered your components with the proper setup codes, you'll be able to operate both this receiver and your other AV components (TV, VCR, DVD player, LD player, CD player, etc.) using the remote control supplied with this receiver.

Memory back up function

Please note that the following items will be deleted from the unit's marrory if the power cord is disconnected from the AC outlet for approximately 3 days.

- · Prower mode.
- . Input selector settings.
- Device present.
- * Picture output
- Speeker ON/OFF
- Volume level.
- . BASS TREBLE, INPUT level
- + Subwooter ON/OFF
- * Dimmer level
- * Monitor DN/DFF.

- * MOVTAPE settings
- 6CH/2CH input setting.
- Lieten mode setting.
- · Speaker settings.
- Input mode setting.
- · Midnight mode setting
- . Broadcast band.
- Frequency setting.
- . Preset mubors.
- Tuning mode.

Special features

True home theater sound

This receiver incorporates a wide variety of surround modes to bring you museroun enjoyment from your video software. Select a turround mode according to your equipment or the software you are going to play and enjoy!

—CSI

Delity Pro Logic & Delity 3 Stereo

The surround system reproduces theate. It is surround sound from video software merical

The PRO LOGIC mode uses the bull-in adaptive matrix circuit to steer the Left. Denter, Hight and Surround channel audio signals.

This 3 STEREO mode will redirect the Surround signal to the front left and right speakers when only the front and center speakers are used.

Dotby Digital (AC-3)

The IOLSY DIGITAL (AC-3) mode lets you arroy toll digital surround from software processed in the Doby Digital (AC-3) format. Doby (Agris) (AC-3) provides up to 5.1 channels of independent digital audio for better sound quality and more powerful presence than conventional Doby Surround.

DTR (VR-407/KRF-V76300 only)

DTS (Digital Theater System) is a 5.1 channel digital audio formal that provides the full spectrum channels and one four-frequency gubwooler) channel for unprecedented clarity, optimum channel separation and a (wide) dynamic range.

in the DTS mode, tille 5.1 channel digital input from a DTS CD, LD or DVD dec learning the "DTS" marking) can be played in Digital Surcount.

Important.

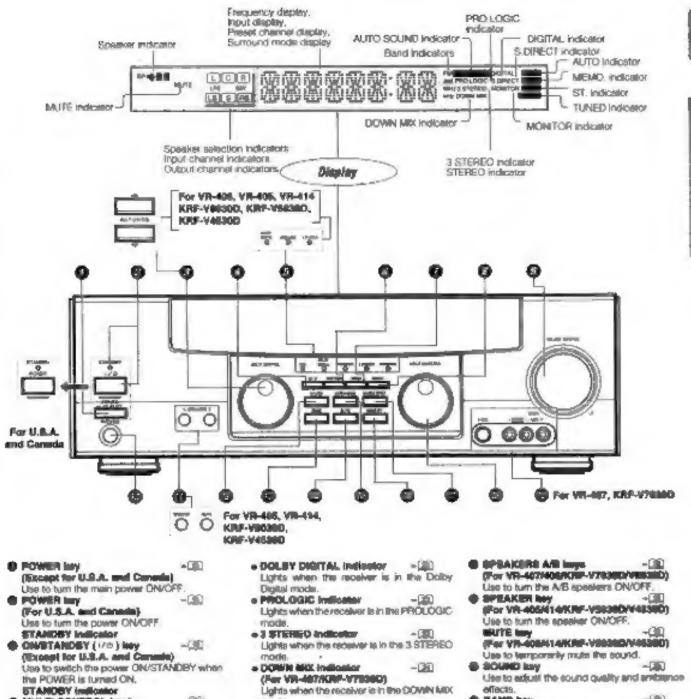
When a DTS duc is played on a CD, LD or DVD player noise may be colput from the analog output, it is recommended that you connect the digital output of the player to the digital input of the Link.

DVD 6-channel input (VN-487/406/KRF-V7636D/V6036C/ V6036D axiy)

If you own a DVD player equipped with 6-channel output, this receiver allows you to obtain the full surround sound impact of DVD source metarial featuring mutti-channel encoding. Since the source signals are digital and each channel is input independently, the resulting ambience is far superior to what can be achieved with conventional surround sound systems.

(Inversal III (intrafted) remote central (VIII-407/406/4095-V78300/V06300 enty)

In addition to the basic receiver, the remote control supplied with the receiver can also operate almost all of your remote controllable audio and video components. Just follow the simple actup procedure to register the components you have connected.



MULTI CONTROL brieb -DO (For VR-407/KRF-V79000) Used to make a variety of settings. MULTI CONTROL MAY For VR-106/405/41 4/KRF-Y000007/800007 ¥45300) Used to make a variety of settings. B SET UP May -00 Use to select the surround sound settings. Surround Indicators

-(11)

- mode. **INPUT MODE key** -(30) Use to switch between the digital and straing -30-30 time to adjust the brightness of the display.
- Use to select the REC MODE. MONITOR My -CID Use to monitor the source that is connected to the MONITOR lack
- **VOLUME CONTROL Intel** PHONES Juck Use for headphone listening.
- **BAND** hey -(11) Use to select the broadcast band.
- **AUTO May** 400 Use to select the auto tuning mode. LISTEN MODE by -(31) Use to select the listering mode. MEMORY May - F Use to store radio stations in the preset memory. SOURCE DWSCT buy - (3 L)
- Use to pass the source metantal direct to the amolities RAPUT SELECTOR lineals -00
- Use to select the input sources AUX IN 3 VIDEO/VIDEO/AUDIO L/RI -(311) or VM-467/K/W-V7946D)

Streetby couds

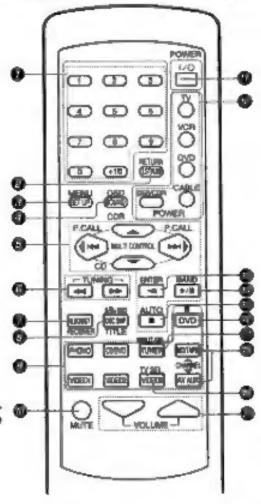
OTS Indicator

(For VR-487/KRF-V79990)

Lights when the receiver is in the DTS mode.

White the standay indicator of the unit is lift, a small emount of current is flowing into the unit's internal circuitry to back up the memory. This condition is referred to se the standby mode of the unit. While the unit is in the standby mode, it can be turned ON from the remote control unit.

Remote control unit (RC-R0609) (VR-407/406/KRF-V7030D/V6030D)



There are some cases in which keys (or lumbs) that have the same function on the receiver and on the remote control have different names, in the instruclions of this manual, if the names of corresponding lays (or latels) on the receiver and remote control are differant, the marse of the remote control key to indicated in parentheses.

Page references such as "RO-QQ" Indicate pages in the remote central operation manual (Separate booklet).

Discourie heps MC-CO Provide functions identical to those of the original numbes control supplied with the component you are controlling.

LETTILM bay -(3) Use to select the listering mode. RIC-ED RETURN by

Use to operate other components.

@ BET UP key -0361 Use to select the surround sound settings. MENU Nev RC+CE Lise to operate other components.

& SOUND My -OD Use to adjust the sound quality and ambience offects. **GGD key** MC-CO

Use to operate other components.

BULTI CONTROL lays Lised to make a variety of settings. Use to operate other components.

-(21) F.CALL < >> bays if funer is eplected as the input source, there helys function as P.CALL keys:

redict lays RC-LL If CD or MD is selected as the input source, three keys function as saunch keys.

TURNO ------RC-LEI Use to operate the turner or selected componeni.

@ 8. 8008T key

Use to asiect the meximum adjustment aniting for the low fraquency range.

-32

PERCEIVED MAY

Use to return to the operation of the receiver.

DISC SKIP My If CD is selected as the input source, this key functions as the multi-CD player disc step key. ARR hey RC-LE

If TAPE is suitacted an the input source, this (A and S) of a coultre cessette deck.

+100 tmy

Use to select the disc number with the multi-CD player.

TITLE bay RC-CZ

Use to operate other components.

HAPUT SELECTOR lays (DVD, PHOHO, CEVOVO, TUNER, MOTAPE, VIDEO1, VIDEOL, VIDEOL AV AUXD Selects the inputs and eats the remote controi to operate the component registered at the respective input.

MUTE key -01 Use to temporarily mute the council.

POWER My Use to turn the receiver on and off.

POWER My (TV, VCR, DVD, D&NCOR, CARLE) AC-CO Lisa to turn the other components on and offi.

O GHTER INV

MC-CO

-02

Lise to openile other components.

4 lay

Il tape is selected as the input source, this key functions as the play key for eide B of the cassette (the side facing away from the front. of the duck).

BAND hey Use to select the proeclosel band.

e-100 febry RC-(B) if CD is selected as the input source, this key functions as the play/pound key. If MID is selected on the input source, this key

functions so the clay key.

AUTO by Lian to select the auto tuning mode.

FIC-CID If CD or MD is astected as the Input source. this key functions on the stop fully.

RC-(II) C III NOY Use to operate other components.

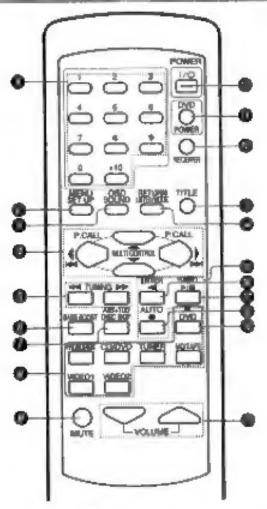
IMPUT SOL, her NC-(II) Use to operate other components.

CHANNEL A/V Noys RC+CD Use to select the channel.

TV SEL IN NC-DD Use to operate other components.

VOLUME Inyo Use to adjust the receiver volume.

Remote control unit (RC-R0509) (VR-405/414/KRF-V50300/V45300)



Kumeric keys

CD or MD is selected at the input source,
these keys function as numeric lays. If funer
is selected as the input source, these keys
are used to call up station present.

◆ SET UP key —□□□ Use to select the surround sound settings. MEMU key

Use to operate other components.

 SQUARD bay
 —Use to adjust the sound quality and embience effects.

000 My

Use to operate other components.

MULTI CONTROL heye -(3):

keys function as P.CALL keys.

If CD or MD is selected as the input source, these keys function as search keys.

TURNING -c-oh-s- bays If tuner is selected as the input source, these stays function as tuning keys.

BASS BOOST key
Lise to select the maximum adjustment setting for the low frequency range O DISC SKIP May

If CD is salected as the input source, this key functions as the multi-CD player disc slip lety. A/B key

If TAPE is appointed as the input source, this (A and B) of a double casselle deck.

+100 lwy

Use to select the disc number with the multi-CD player.

MPUT SELECTOR large (DVD, PHONO)
 AUX, CD/DVD, TUNER, MO/TAPE,
 VIDEO1, WDEO2) — (II)
 Selects the inputs and sets the remote control to operate the component registered at the respective input.

MUTE tay - [

Use to temporarily mule the sound.

POWER boy -(III)

Use to turn the receiver on and all.

DVD hey
 Used to operate DVD player.
 For details, refer to the instruction manual of your DVD player.

 RECEIVER (say Uses for eturn to the operation of the receiver.

TITLE key
 Use to operate other components.

LIETEN MODE lawy
 Use to select the listening mode.
 RETURN bey
 Use to operate other components.

D Component operation layer RC-QQ

Use these keys to operate other components with system control connections to the receiver.

or large

If tape is selected as the input source, this key functions us the play key for side 6 of the cassette the side facing every from the front of the decid.

erit imy

If CD is naticated as the input source, this key functions as the play/pause key.

If MD is selected as the input course, this key functions as the play key.

m kney

If CD or MD is aniected as the input course, the key functions as the stop lary

Use to operate other components.

If furner is selected as the input source, this key functions as the band selector key.

♣ AUTO key —②D If tuner is selected as the input source, this key functions as the AUTO key.

a lay

Use to operate other components.

◆ VOLUME hope -□2
Use to adjust the receiver volume.

Make connections as shown below.

When connecting the related system components, be sure to also rater to the instruction manuals supplied with the components you are connecting.

components you are connecting. Do not connect the power cord to a wall outlet until all

connections are completed.

DTS allectatores plante

DTS Digital Surround ** is a discrete 5.1 channel digital audio formal systable on CD, LD, and DVD software which consequently cannot be discrete and played back reside most CD, LD, or CVD players. For this reason, when DTS-encoded software is played back through the analog outputs of the CD, LD, or DVD other, excessive notice will be enhanced to swoid possible damage to the audio system, proper precestions should later by the consumer if the analog outputs are connected directly to an amplification system. To enjoy DTS Digital Surround by system must be connected that the digital output (S/P DIF, AES/EBU, or Tostink) of the CO. LD or DVD player.

The only audio product modes incorporating the DTS Digital Surround decoder are the VR-407 and KRF VRXDD.

WOEO 2/MONITOR Jacks (for VR-496/405/414/KRF-VB836D/V5636D/V4536D)

The receiver's **VIDEO IMPORTOR** jecks can be used in two different ways. Make the appropriate setting for the component connected to the stack when the receiver is turned on.

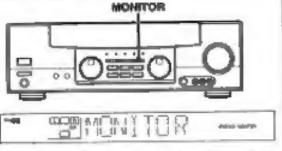
Use se o VIDEO 2 jack

You can connect a video deck or the life to these jecks and perform video playback and recording. The initial factory setting is: "VIDIO 2".

Use as a SKORFTOR jack

You can connect a cassette deck or the like to these jucks and make use of the deck a monitoring function during recording. Alternately, you can connect a graphic equalizar to these jacks to apply compensation to the music stants.

To use the **YIDEO 2/ISONITOR** jacks an **INDISTOR** jacks, hold down the **ISONITOR** key of the main unit for more two seconds so that the indication shown below appears.



- At the name time the setting is switched to "MONTOR," the audiomput source switches to tuner and the video input source switches to VIDEO
- To switch the setting back to "ADED 2," once again hold down the MONITOR key for two seconds or more.

Notes

 Se sure to insert all connection cords securely. If their connections are imperfect, the sound may not be produced or noise may interfere.

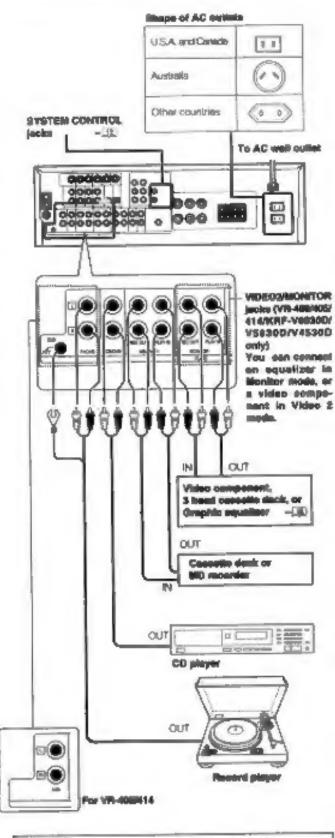
 Be sure to remove the power cord from the AC cuttet before plugging or unplugging any connection cords. Plugging/unplugging committion cords unplugging any connecting the power cord can cause mailunations and may character the unit.

 Do not connect power cords from components whose power consumption is larger than what is indicated on the AC outlet at the rear of this swit.

Analog committees

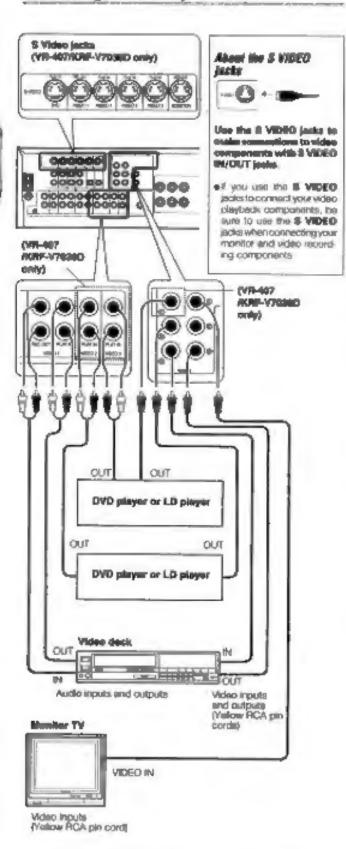
Audio connections are made using PICA pin contis. These cables transfer stereo audio signal in an "eretiog" form. This means the audio signal corresponds to the actual audio of two channels. These cables usually have 2 plugs each end, one red for the right channel and one white for the left channel. These cables we usually packaged with the source unit. Or the systems at your local electronics retailer.

Connecting audio components



When you convect the video component to the VIDEO 20000-TOR jects, convect the video cord (yellow RCA pin cords) of the connected component to the VIDEO 2 IN juck (VR-spersol/414/ 1297-Y983002VS83003V4630D enty).

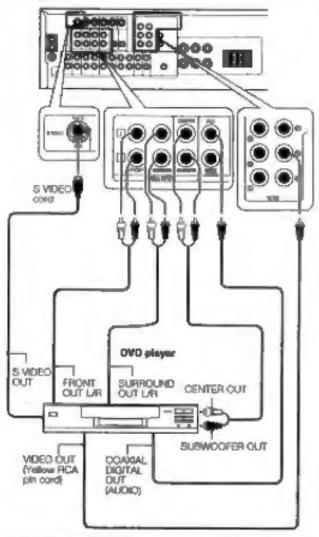
Connecting video components



A video compound with digital sudo outputs about be conrected to the VIDEO2 or VIDEO3 (VVI-457/KNP-V74660 snly) jacks.

Connecting a DVD player (6-channel input) (VR-487/488/KRF-V78300/V88300/V88380/V48380 aniv)

If you have connected a CVO player to the receiver with digital connection, be sure to read the "input mode settings" section on the following page carefully.



To switch the speciers off, press the MI/TE lay.

CAUTION (Except for U.S.A. and Canada)

Be sure to achieve followings. Or proper ventilation will be slocked causing damage or fire hezard.

- Install the VR-407/406/405/414/KPF-V7030D/V8030D/V5030D/ V4530D on the top of the system.
- Do not place any objects impairing heat radiation onto the top of unit.
- Laive a space around the unit from the largest outside dimension including projections equal or greater than, shown below.

Top panel: 50 cm

Side panel: 10 on

Back panel: 10 cm.

CAUTION (For U.S.A. and County)

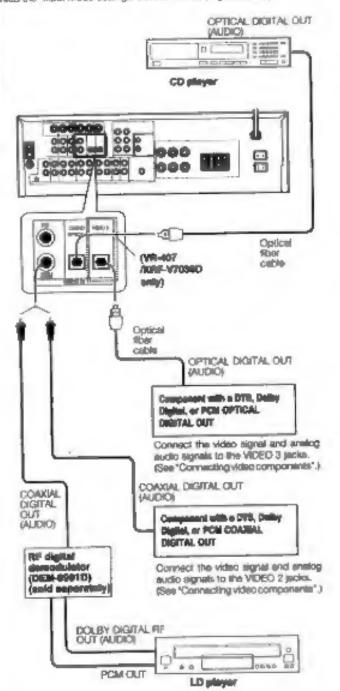
Be sure to achieve followings. Or proper ventilation will be blocked causing damage or fire hazard:

- Install the VR-407/408/405/414/KRF-V7030D/Ve030D/V5030D/ V4530D on the top of the system.
- Do not place any objects impairing hast radiation onto the top of unit.

Digital connections

The digital in packs can accept DTS, Dolby Digital (AC-3), or POM signals. Connect components capable of outputting DTS, Dolby Digital (AC-3), or standard PCM (CD) formal digital agrees.

If you have connected any digital components to the receiver, be sure to mad the "kipul mode settings" section on this page carefully.



To sensect in LD player with a BIOTTAL RF OLT, connect the LD player to the KENWOOD RF digital demodulator (DEM-6081D). Heat, connect the DIGITAL OUT jacks of the demodulator to the DIGITAL IN jects of the receiver.

Connect the video signal and analog multip signals to the WDEO 2 or VIDEO 3 (VR-407/KRF-V7086C only) (sales, thee "Connecting video components".)

input made settings

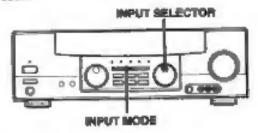
co. DVD. YIDEO3 and YIDEO3 (VR. 407.40PF V7030D only) inputs each include jacks for digital audio input and analog audio input. You must select beforehand which type of input is to be used for each connected component.

The initial factory setting is to use the digital audio signal for playback (CD, DVD, VIDEO2, VIDEO2).

To use the enalog audic input for playback ineteed (f), for example, you have connected a VCR to the VIDEO2 or VIDEO3 input, you must set the input made for the corresponding input to the enalog mode.

After completing connections and furning on the receiver, follow the

steps below.



- Use the MP4T BELECTOR Invelop-maket CB, DVO, VIDBOS, or MAKETS
- @ Press the HIPUT MODE toy.

Each proce switches the setting an infletor:

in UTS play made (VR-407/KRF-V78380 only)

- (i) D-AUTO (signal input, auto sound)

- (2) O-MANUAL (digital input, manual acound)

In DVD play made

- (i) D-AUTO (digital input, auto sound)

2) D-MANUAL (Sigital Input, manual sound)

(5) BICH INPT (DVD BCH INDUS)

(i) ANALOG (analog input, manual sound)

in other mode than DTB or DVO play mode

D-AUTO (digital input, suto sound)

D-MANUAL (digital input, manual sound)

AMALOS (analog input, menual accord)

District Invest-

Saluct this setting to play digital signals from a DVD, CD, or LD player.

Amiltog Input:

Select this setting to play arrating signals from a cassattle deck, VCR, or turnishin.

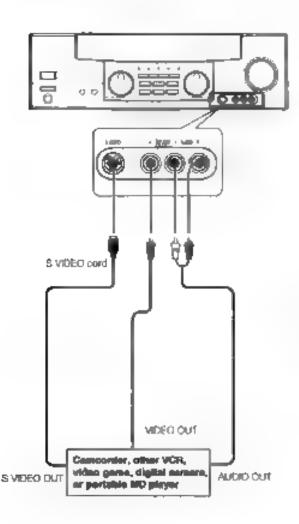
Auto sound:

In the suic sound mode (AUTO SCHAID Indicator lights), the receiver selects the latering mode automatically during playback to match the type of input again (Dolby Digital, PCM, DTS) and the speaker setting. The initial factory setting is auto sound on.

To leave the receiver set to the currently selected listening mode, use the MPUT MODE key to select "D-MANUAL" (manual sound). However, even when this setting is selected, there may be cases in which the listening mode is netected externalizatly to match a Doby Digital source signal depending on the combination of listening mode and source signal.

Connecting to the AUX IN jacks (www.es/ess-v78360 enly)

The AUX IN judes are consensed for connection of vicino components such as a carroorders and video games.



- To suited the source commented to the AUX 89 justs, select ###
 AUX by using the INPUT CELECTOR lends. ~(2)
- When you connect the sudio source such as the hit player, you do not need to connect the video cable.
- When you cannot the unit and the company with the \$ 91050 cord, you can get better picture quality.

Connecting the antennas

AM loop antenna

The supplied loop antennals for use indoors. Place it as far as possible from the receiver. TV set, speaker contitional power contition and adjust the sheaten for best reception.



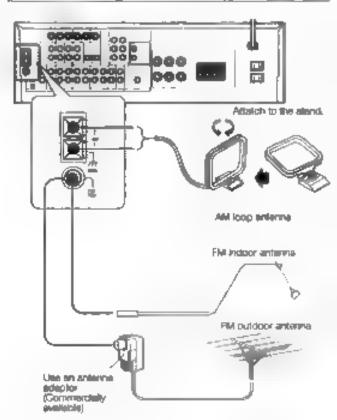
Fill Indoor automo

The supplied indoor entenne is for temporary use only. For stable aignal reporters were commend using an outdoors, placement. Disconnect the indoor entening when you connect one outdoors.

Fill outdoor anteana

I and the WNI cower cable connected to the HM sulpton untering into the room and connect it to the FM TRO terminal.

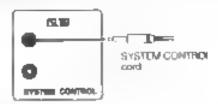




Connecting the system control

Connecting system powers sends after contracting a KENNICCO static wemperant system late you take advertings of convenient system control operations.

This will be competible only with the (SL-16) mode. The system control operation is not evaluable if the unit is commented in the (XS6), (XS), or (XR) commenter made.



EXAMPLE: [SL14] mode numberlions

The underlined portion represents the setting of the system control mode.



This unit closs not support the DCB #] mode.

In order to links adventage of the system control operations, the
components must be connected to the correct jedes. To use a CD
player it must be connected to the CD jedes. To use a cannette deck
for MD recorder) 4 shuff be connected to the MD/TAPE jedes. When
taking more than one CD player (etc.) only the one connected to the
apacified jacks may be connected for system control.

 Some CD players and caracter decks are not comparate with the \$5.16) system control mode. Do not make system connections with

aguipment that is not [St. 16] competible.

Some MD players are not system control correpatible. You cannot make system control connections to the kind of equipment.

Modes

- † [SL18] equipment cannot be combined with QFI, [CS], and [CSB] equipment for system operations, if your equipment consists of this ideal of combination, please do not combined any system control cords. Even without system control cords, normal operations can be carried out without effecting performance.
- Do not connect wystern control conds to any components offer then those specified by KENWOOD, it may cause a millianction and demage your equipment.
- Be sure the system control plugs are inserted all the way in to the system control terminals.

De not commet a system control conf to a cassalle deck conmarked to the VIDEO2/8000/FOR jacks.

SYSTEM CONTROL OPERATIONS

Remote Control

Lets you uperate the unit with the system remote supplied with the receiver

Automotic Operation

When you start payback from a source component, the input milician on this unit sylfiches to that component automatically.

Synchronized Recording

Lets you synchronize recording with the start of playback when recording from CD. MO or as along these.

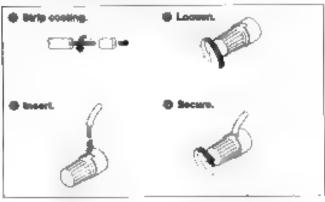
Registering salay codes for KENWOCO audio sampanenta (161-467/66/GR)-478305/V98390 mily)

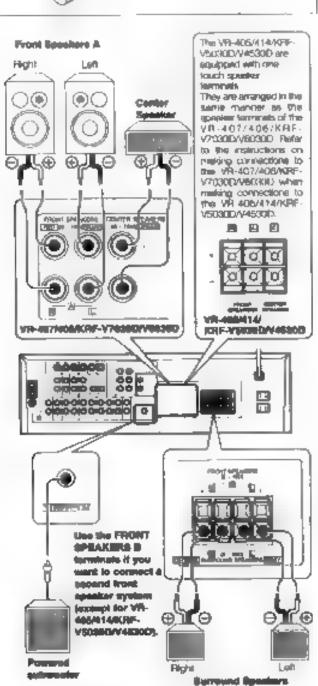
 Once you finish making the system commutations, be sure to register life appropriate setup code for each component

 If you own remote controllable KEN/WOOD audic components that are not competible with system control, registering the setup code inables you to control those components using the remote control supplied with this unit (without connecting system control cords). To register astup codes for your remote controllable KEN/WOOD audic components, see "Registering estup codes for other components").

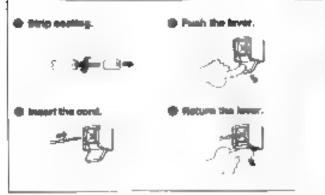
RC-CSI

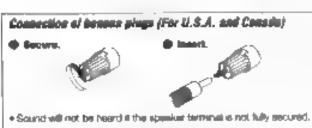
Connecting the speakers





(Be sure to connect both auround apealers)



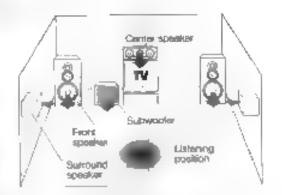


- . Negver short cardial the it and speaker cords.
- If the sett and right spanishes are connected inventely or the speaker cords are connected with reversed polarity, the sound will be unrefural with ambiguous accustic imaging. Be sure to connect the speakers correctly.

Species (repodents

After confirming the speaker impactance extinctions printed on the near parent of the receiver, connect apeakers with matching impedance relings theng speakers with a rated expedience other then that extend on the rear panel of the receiver could result in malfunctions or denings to the speakers or receiver.

Speaker placement



Frent specimes. Place to the frontieft and right of the Istering position. Front specimes are required for all surround modes.

Center speaker: Place from and center. This speaker stabilizes the sound mage and helps recreate sound motion. Be sure to connect a center speaker when using the Doky 3 Starte mode.

Surround eposition. Place to the direct will and right, or slightly behind, the tetering position at even heights, approximately I meter above the ears of the learnings. These speakers moreline sound motion and armoughers. Required for surround playback.

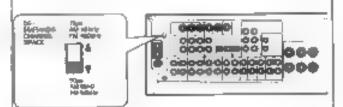
Bultwooter - Proproduces powerful deep begs sounds.

Applying the ideas surround system commits of all the speakers lighted above, if you don't have a confer speaker or a subwooter, you can divide those signals between the evaluable speakers in the speaker actings steps to obtain the best possible surround reproduction from the speakers you have available.

Channel agrees projecting (Empat for the MEA, Coneds, UK, Escape, and Australia)

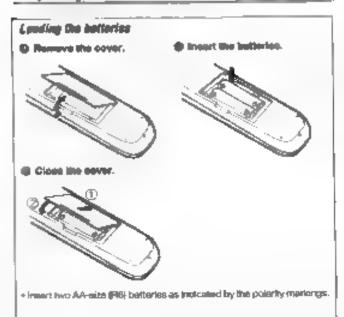
The apace between racks channels has been set to the one that prevails in the time to which the system is enloped. However, if the current channel space setting close not match the setting in the area where the system is to be used, for instance when you move from area. I or area shown in the following table or vice versa, proper reception of AAAFM broadcasts cannot be supected. In this case, change the channel space tening in accordance with your area by referring to the following liable.

	Arqu	CHANNEL Specie Frequency
1	USA, Canada and South American countries	FM 100 KHZ AM 10 KHZ
2	Other countries	FM: 50 kHz AM: 9 kHz



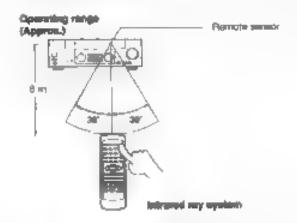
Move switch lever to mutch your area With a small scrawdiff/ite or other pointed loof

Preparing the remote control



Operation

What the STANDEN inclusion is if, the power funts ON which you priess the POWER key on the remote control. When the power correst ON, press the key you want to operate.



Vitron-presents more train one remate corerol key exponentially, problems, the keys recursily by leaving an interval of a second or more between leave.

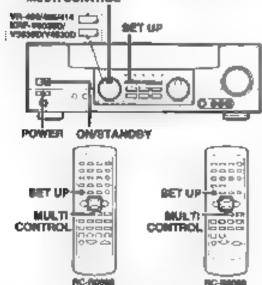
Nolma

- The supplied beginner may have anorter lives than ordinary betteries the to use during operation checks.
- When the remote controllable distance gate shorter than before, replace both beforee, with new order.
- Placing the remote service in direct surlight, or in direct light from a high insquarcy fluorescent limits they cause a meffunction.
 In each a case, change the location of the system installation to prevent mathematics.

Saeaker settines

To snable you to obtain opermum enjoyment from the receiver's listering. Prodet, make sum to complete the speaker settings saltimodes, front. center, and surround appakers as described below

MULTI CONTROL



- Turn on the power to this receiver by pressing POWER (and De/STANDEY) boy(s).
- Select a speaker system.
 - Press the SET UP key to make the extraooter setting indication (SUBW) appear.



- Vée the MULTI CONTROL to natural the appropriate automobile. and the same
 - (*) BUINN YES: A subwooler in connected to the receiver.
 (*) (**) (**) ** (**)
 - . When the setting "SUSW" NO" a selected, the front apparatus Buildmatically are set to "Larger" and the procedure slage to step .
- Prece the BET UP key to accept the setting.
- The front speakers setting indication (FRMT) appears.



- Use the MULTI CONTROL to select the appropriate front approfess selling.
 - (T) FRAT NML (normal): Average size front speciers are · (2) PRINT LINE (Brigg):

contracted to the receiver.

Large front apeaters are connected to the receiver.

Proce the UET UP hay be accept the colling.

The center speaker setting indication (CNTR) appears.

CONTROL to religion appropriate contact papaiour potting.

If you unlasted "LING" as the front speakers setting.

- U: CNTR LRG (argus): Alongs center speaker is connected to

Dat receiver

2 CATH NOT. Increase: An average plan center speaker is connected to the receiver.

. DECEMBER MOS No center apeator is corrected to the

If you extended "NBS;" on the front appellors setting. - 1/2 CNTH YES: A certer speaker is connected to the

receiver.

- 127 CNTR NO: No center apealier is connected to the

FELLENSEL.

Press the BET UP toy to accept the entire.

- The surround apparent selving indication (SUPP) appears.
- Use the MULTI CONTROL to assess the appropriate curvacand according setting.

If you nationed "LRQ" as the center epocher notting.

TI BURR LRG termin Large surround speakers are connected to the receiver.

21 BUTTO MICH. Incomedi: Average size surround appearers, ere

connected to the receiver. - (9 BURN NÓS No surround speakers are connected

In the recessor

If you assected other than "LPG" up the center appartur setting.

(1) SUMM YES: Surround speakers are connected to the re-CONTR

= (i) SUPPL NOTE No surround apparent are connected to the réigiel/réi .

- Proce the DET LIP key to account the antilog.
 - The receiver anters the apeaker volume level adjustment mode.
 - In steps Wand W, indications appear only for the sulected charmets of the speakers that require educting,

Adjust the values levels for the speakers.

Sit in your normal listening position and false to the built bein. Adjust the VOLUME levels for the speakers until all appealers peem to be equally loud.

Use the MULTI CONTROL to saliged the volume when the test. lithin is heing output from the epeater channel to be adjusted.

The charmel inclusion darks while the test tone is being output.



The test tone leager from the specimen for 2 accomic at a time in the letterring acquirence:

Leb - Coh - Rob - Rob - LB - ther - Lob

- If you change the volume level settings for the speakers while faturing. to music, the settings referred to on this page are also changed.
- If the speaker nathing asknots are changed, the appealer level astlings. are reset.
- Press the BET SP toy.
 - . The receiver enters the mode for inputting the distance to the **ADOMAGN**

Input the distance to the speakers.

d Measure the distance from the Scienting position to each of the needer's.

Jol down the distance to each of the speakers.

food (restoral Carterion to from appearing feet (meters) Distance to center speaker:

test (maters) Eligiance to surround speakers:

S then the MULTI CONTROL to assect the distance to the front appealence.

The appearer indicator to be adjusted banks



- The allowable setting range = 1 to 30 feet ((1.3 to 9.0 m), adjustable in 1 tool (0.3 m) increments
- & Press the SET UP boy.
- ◆ Report stope ◆ and ◆ in legal the division for widt of the possibers.
- Salve is partylate when the input indication recomment.



Display when at speakers have been selected

 The weathers you selected appear on the display. Confirm that all the speakers have been correctly selected.

ineal level sillustment (pasteg sources entr)

If the input level of an autility source algoriths too high, adjust the input mail.

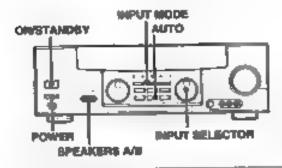
- in the the MPUT SELECTOR brest to select the powers whe's fraud level you want to edjust.
 - *You can store a separate your level for each input source. If the MIONITOR function is on, you can store an input level for when MONTOR is on independently of the input levels for the input NOT PORT
- Prace the BCURO key servical times until the "BCPUT" indication
- On the the MULTI CONTROL to self-or the input inval.



- The edjustment mode is displayed for approximately eight seconds.
- The imput level may be adjusted to any one of three settings: 0. -2, and -6 (The Initial seriong is 0.)
- Proor the SOURID hay to estart in the input Indication.

Preparine for alayback

Some proparatory steps are needed before starting playback.



Selecting the Impai roods

If you have selected a component currected to the CO, DVD, VIDEOS, or WIDEOS (VN-407/KRE-V7030D only) make, make turn that the input mode setting a correct for the type of audio agent to be used -- (8)

Solucting MO/TAPE

Select the source harte corresponding to the component connected to the MD/TAPE lecks. The miles factory eating a "TAPE". To change the source name associated with the MD/TAPE jecks to "MD," follow the snapa balow.

- O Use the HPUT SELECTOR trock to select "MOTAPE".
- Hole deem the AUTO bay for more than 2 seconds.
 - The source indication changes to "MID".
 - To return to the original indication, repeat the above procedure.
 - You also will need to change the narrar input to the remote control to PIC-LIL MID".

Enlacting the spentar system (except for VN-400/414,45%-VSB290/V45302)

Propo the SPEARSHIP A or B lary to extent the apositor system to he seed.

 Sound from the upotions corrected to the SPEAKERS A A ON bermands on the rear planet.

: Sound from the speakers corrected to the SPEAKERS B 9.000 turninals on the roor panel.

A+B ON : Sound from both the speakers connected to the SPEARERS A and 3 terminals on the reer panel.

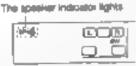
Asia OPF : No sound from the speakers. Use this setting when faturing with headphones for stereo count and virtual surround in all

phybrick modes.

The indicator for the speakers you want to use should be th.



VIR. 407/406/ KRF-V7030DAV6030D



V9-405/414/ KRF-V603007V4530ID

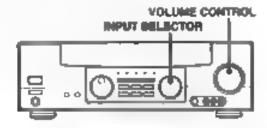
 Activating 6 surround mode or selecting "DVD/6ch" as the input source. causes apaykin system A to be selected automatically.

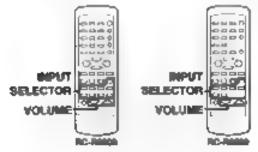
Dis this VP-40EH1 GROW-VERSON/VERSON, press the SPEAKER has to sydich the specietrs on and off.

Familiag and the receiver

- Them can the power to the related economistis.
- Turn on the power to this receiver by presenting POWER (and GW) STANCEY) Implob.

Listening to a source component





Line the IMPLIT SELECTOR is select the searce yee want to Autor in.

The legal sources change as shown below:

Selecting a source using the MPUT SELECTOR brok-

VR-4078CRF-V7038D

- IT *PHOMO*
 - O TUNER
 - O CONDAD.
 - [®] "TAPE" or "MD"
 - 1 1VIDEO11
 - ANDEOS,
 - ② "WDEO3"
 - "CN/D/Bob"
- ◆ ③ "AT AUX"

V77-104/406/414/K/RF-V4086D/V-8668D/V-4636D

► ()- JAHONO, (AM-406-KM-AMMONDAMMONDAMMOND

- U. CAURT OVE-100/4140
- C THURS
- C CONDVD
- ("TAPE" or "MD"
- G TYROROTT
- (i) "VIDEOG"
- UP TOWORAST (VR-4007CRF-V00000A/S0000 will)

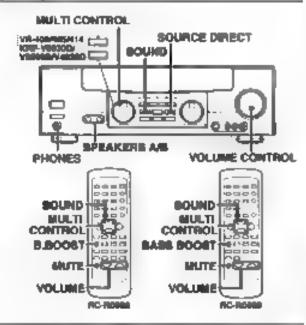
Est physical from the selected source.

The the VOLUME CONTROL hash (VOLUME bays) to adjust the volume.

Enlecting VINES 2/MONITON (assept for VII-487/KNF-V78300)

Departing on the component connected to the 19080 3/45/4/TOR jacks, assect either the "19060 2" setting or the "1909/1707" setting, as appropriate.

Adjusting the sound



Adveting the teas

You can adjust the sound quality when the receiver is in the PCM stereo and analog stereo mode.

Press the SOUND key to select the term except to be adjusted.

GABS: Select this to adjust the low trequency range.

(Press the SOUND key orce.)

TREE: Select this to adjust the high frequency range.

(Press the **SOUND** key fivior.)



• the the MULTI CONTROL to adjust the sound quality.

- The base and trable levels are adjustable from: 10 to +10 in 2 step-increments.
- The adjustment form is displayed for approximately 8 encounts.

Onco-look few frequency conthesis (best beet)

You can adjust the sound quality when the receiver is in the PCM stance and ending starce mode.

Press the 61 BOOST (BASS BOOST) key.

- Prose the key once to select the majoraum (+10) low insquarcy emphasis setting.
- This key does not function when this receiver it in the sound quality or ambience effects adjustment mode.

Surfaking book to the previous setting

Proce the SI BOOST (SASS BOOST) bely specie.

Multing the sound

The METTE key lets you muse the sound of the speakers.

Propo the MUTTE long.



Plimia

To execut

Press the MUTE key again so that the "MUTE" indicator goes off.

Multing can also be canceled by adjusting the volume.

SOURCE DIRECT playback (analog sources only)

Use this function to pass the source material direct to the amplifier, bypessing any audio processing.

Press the SOUNCE DIRECT May.



 When you press the LIETEN MODE, SQUIND, or SET UP keys, or switch to another input source. SQUINCE DIRECT playshock will be canceled:

To cancer

Propo the SOUNCE DIRECT key again.

 If SOURCE parect payback was activated when using a number mode, canceling a resolvates the previous symbolic mode.

Liniousky with hondakenes

(vn-er/resyr)/F-v7ebstrverse()
 Press the SPEARSHS A or B key so that the updater indicator sees off.

(VM-majet 4)(MF-Vangom/V46100) Prope the SPEA/CER key no that the appater incleator goes off.

Make sure the SPEAKERS indicators are turned off.



VP-407/408/ IORE-V7030DAV6030D Make ours the SPEACER Indicators are turned oil.



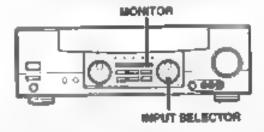
VR 405/414/ KRF V5030D/V4530D

- elf you turn off all of the speciam; when in the surround mode, the mode is cancelled as well, resulting in states playback.
- The speakers do not award off during the BCH INPUT mode Select the other input mode
- @ Coronal headphones to the THOHES just.



@ May the VOLUME CONTROL (VOLUME) to select the values.

Recording audio (analog sources)



Recording a maste source

When recerding a music source, switch the VIDEORNOHITOR setting to "BOJETOR" (VR-488408/414/KRF-V8038D/V83880/V45300 only). —(3):

- Use the HERLY BELECTOR levels to select the searce (other than "CAPE") you want to record.
- Set the casselle duck to record.
- Start playback, then start vacording.

Repending tapes or MIT

tenen recording a maric source, particle the VIDEO2/MONITOR setting to "MOSELY OR" (VR-400/400/474/CRF-V00/00/VP000D/VV00/DD wrigh).

MONTOR - MOTAPE recording

IN Press the MONITOR Ray.



- Use the PUPUT SELECTOR trust to ushed a nature offer than "MD/TAPE."
- Start physicals on the cuseoph about convenient to the MONTOR justs and other remarking on the consists dook operated to the MOTAPE Jacks.

MINTAPE -- SECRETION recording

- @ Use the POPUT SELECTOR back to select "MD/TAPE."
- Beart playment on the escapetic deck connected to the MOTAPE.
 Justics and exact recording on the casestte deck connected to the MOMITOR leaks.
 - To copy tapes using a double cassette discit, refer to the Petrudion manual of the double cassette discit.

MONTOR Junction (Ambing sources mily)

You can connect a cassettle deck or graphic equation to the WIDIDGE segmentary lacks of the receiver if a graphic equation is connected, the MCHITCH key should be tell in the on position. Alternately, if a cassetts deck acquipped with a 3-hasel system is committed to the WIDEGE security pates, you will be able to mortifor the just-recorded argumental material recordings on the caseste deck. By switching the MOHETCH key on and off, you can compare the sound of the sounds aignal and the just-recorded signal. For more information, refer to the instruction manual of the connected component.

Recording video

- Use the High IT SELECTOR to extent the video course (either then "VIDEO1") you want to record.
- Set the video duck contested to WOEC 1 to record.
 - Salud the REC MODE to record a digital input source.

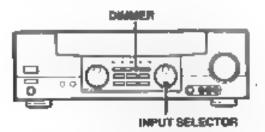
Shari playback, then start recording.

 With certain victor sufficient, recording they not be normal that to the ecopy guard condition.

Recording audio (digital sources)

Switch on the **REC MODE** to rectiful a digital input souths. Usually use the A-REC MODE to record wirks croud suppose When the digital mode changes during recording in the A-REC MODE, the audo may be interrupted momentumly. To recard the audo from the beginning of the digital movie charge, use the M-MEC MODE With a model that is not compatible with OTS, no audio is reproduced over when the DTS water are hitself.

Recording music in A-REC MODE



- Use the ROPUT SELECTOR to select the source (CD, DVD, VIDEO2, or VIDEO3) you work to resent.
- Set the cascatto dock to record.
- & Prope and hold the DIMMER lay for more than I seconds to solest the A-REC MODE.
 - The mode changes every 2 secunds as shown below.

Office Mode off:

The digital input record made is

authorized off.

SM-REC MODE:

The digital input eigenic (DTS, Dolley Digital, or PCNI) are identified automatically and converted into stereo signals that are ready

for recording.

COMMISSION :

The input signal type of the rec-spect this made to netected in held

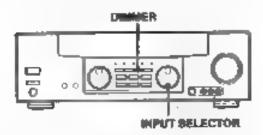
throughout this mode.



Start playback, then steel recording.

 If the audio reproduction stops in the middle due to change in the input signals, etc., press the OfficeR key.

Recording music to M-REC MODE



- Use the input selector to select the source (CD, DVD, VIDEOZ, or VIDEDS) you want to record.
- ill. See the consetts deck to rectird.
- Play the source to be recorded.
- Press and held the DMMER key for more than 2 eccords to select the M-MEC NODE. The reade changes every 2 seconds as shown below.

UREC MODE off:

The digital input record mode is

entiched off.

2:A-REC MODE:

The digital imput signois (OTS, Dolby Digital or PCM) are identiflud automotically and converted heto stereo signals that are ready

for recording.

- (TM-MEC WOOE)

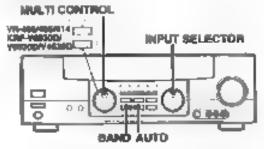
The input signal type of the moamost this rouds is established in hild Throughout this mode.

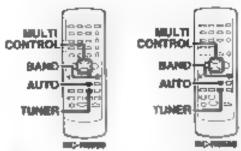


- B Play the course from the beginning and clark recording.
 - If the audio reproduction stops in the miscle due to change in the input signals, etc., presenths Officers R key.

The receives pain story up to 40 stanons in the reamony and recall them by one-touch operation.

Tuning radio stations





- Marie the HAPLIT SELECTOR or TUBER key to select the
- Use the BAND key to select the desired breedcast band.

Each proce switches the band as follows:

1,1990 2) AM



[3] Upo the AUTO key to select the desired inning method.

Each proce systems the tuning method on follows:

 ① AAUTO IN fauto turting) (i) AUTO not ill (mimus) busings "AUTO" indicator lights.



Use the MULT? CONTROL to select the station.

Lights when a broadcast is Frequency naing received in elerad display

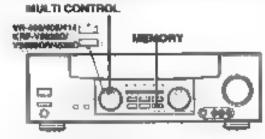
> "TUNKED" is displayed. when a station is received

Auto-haring z. The root station is tuned automatically

Manual turking : Turn the knob (press the key) to select the

chapped station

Presetting radio stations manually



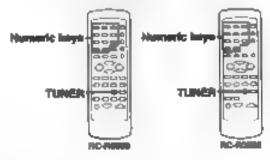
- Fune is the station you want to stary.
- Fig. Proce the BENGAY key while receiving the station.



Proposed to step @ within 5 assemble. (if many them 5 seconds alapse, press the MSMORY key ag

- Man the MILILY? CONTROL to solect one of the station presets (1 - 48).
- Proper the MERITALY key to second the setting.
 - Reposit associal. III. III. and III to store as many stations on recommy.
 - if you giore a station at a previously used present, the old station will be replaced by the new one.

Receiving preset stations



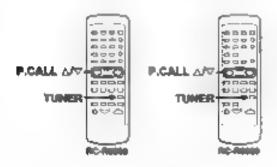
- Proce TUNER to agreet the famir as the source.
- [4] Estar the combot of the proof you wont to receive (up to W.

Press the manario have to the tellowing enter:

 If you make a metales entering a two digit number, proce the +18 key several terms to return to the original display and start again.



Receiving preset stations in order (F.CALL)



- Press TURES to select the baser as the source.
- Use the P.CALL key to select the desired station.
 - Each time you press the key, another presst station is received in order

Precising the P.CALL (A) toy dots the infeeting: 01-42-43-4, 36-36-46-81-42-43-4

Prending the P.CALL (V) tay does the following: Q1-83-83+...... 38-38-48-Q1-82-83+

Holding down the key, lete you side through the precels, receiving such for 0.5 concerns spiece.

n %

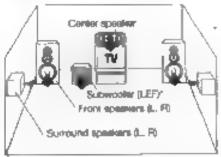
This receiver is equipped with listening modes that ellow you to enjoy on enhanced sonic ambience with a variety of video sources.

In order to obtain the optimum effect from the surround modes, make even to input the proper species settings beforehand. "(3)

Surround modes

UTS (VR-407/KRF-470300 anly)

The DTS must-channel aucho format is available on CD, tiD and OVO achivers. DTS at a strictly digital format and can not be decoded listed most CD, tiD or DMD players. For this respon, if you attempt to inten to DTS ancoded notivere through the enging output of your new CD is D or DMD player, you will experience digital noise in most cases. The noise can be quite loud if the shared output is connected directly to a high cower amplification appears in high playing the digital cusput as described below should be taken to swood this struction. To enjoy DTS Digital Surround decoder system or an empirier with a built-in DTS Digital Surround decoder must be commented to the digital output (\$4P DES, AES/EBU or Tost Unit of a CD, LD at DVD player.



* Optional in this mode.

* LFE - Low Frequency Effects. This channel delivers separate nondirectional basis signals to the subweater for more dynamic deepbase sound effects.

DTS has a .1 or UFE charvest.

The indication "LPE" appears in the deploy when a signal is being input for this channel.

Manufactured under learner from Dolby Laboratores. "Dolby". "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. @1992-1997 Dolby Laboratories. All rights reserved.

Manufactured under Teanes from Digital Theater Systems, Inc. US Pal. No. 5.451,942 and other works/de-parents insure and pending

"DTS" and "DTS Digital Surround" are trademarks of Digital Theorier Systems, Inc.

© 1996 Digital Theater Systems, Inc. All rights reserved.

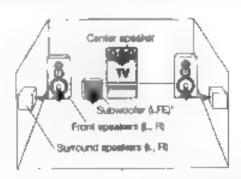


Dolby Digital (AC-3)

The Daiby Cigital (AC-3) purpound format less you enjoy up to 5.1 cherusals of digital surround sound from Dolby Digital (AC-3) program sources (such as Leserciae of DVD software marked (AC-3) provides even passed with previous Dolby surround, Dolby Digital (AC-3) provides even better sound quarity, greater spetial accuracy, and improved dynamic range.

Note

Aprough a full net of spenium (front left, right, and center, surround left and right, and a subwooter) is required for true 5.1 channel Doby Digital (AC-3) surround sound, this receiver lets you enjoy Dolby Digital (AC-3) (and Doby Surround) program sources, even if you connect only the front speciess. ("Species placement")



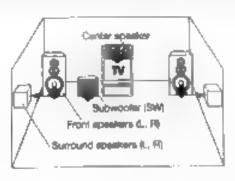
* LFE = Low Prequency Effects. This channel delivers separate hopdirectional basis signeds to the subwacder for more dynamic deep their sound effects.

Amough only Doby Digital (AC-3) soundiracks incorporate a separate law frequency channel, consecting a subwooter will also improve deep basis performance in the other surround modes.

The indication "LPE" appears in the display when a signal is being input for this channel.

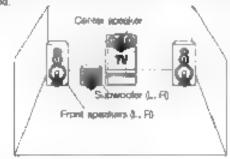
Dollar Pra Lagie

Dailby Pro Logic is a specially uncoded 2 channel surround formal designed to provide theater-like surround sound from Dailby Surround encoded sounds (such as video and Lastroleo software marked DECEMPSHEED). This receiver is equipped with a Dolby Pro Logic surround discoder to let you argue the wide variety of currently available. Dolby Surround home video software.



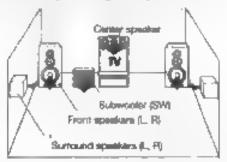
Dolby 3 Stores

Dolby 3 Stereo is available for systems that do not have surround appellers. When in the Dolby 3 Stereo mode, the surround information to redirected to the front left and right speakers. The mode is designed for asia with Dolby Surround program sources, but can also improve 60urd field unity for originans that are not Dolby Surround incoded. Distog posterning and sound image definition, however, may not be as accurate when used with programs that are not Dolby Surround encoded.



DVD 5-chancel made

Uting a DVO player or the Ne equipped with an (5.1) output channels and the receiver, you can enjoy multi-channel encoded DVO source material in all its splendor. Since the source signals are digital and auch channel is report independently, the resulting sound quality, sense of spacoueness, and dynamic range are superb.

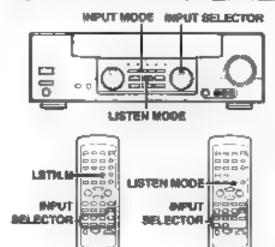


UFE = Low Frequency Effects, This channel delivers expenses non-directional base signals to the subsecution for more dynamic deep base sound effects.

The indication "LPE" appears in the deploy when a signal is being input for this channel.

Surround Play

The DTS compabble models can reproduce a CD, DVD, or LD carrying the DTS mark, NR-407 and NRH-V7030D only)



Preparations

- Turn ON related components.
- Complete "Preparing for autround sound" (speaker settings). (36).
- Use the BEPUT SELECTOR to swiect the component you wish to play back with surround sound.
- Use the BOPUT MODE key to select the injust mode (employ or cligital) for the source you wigh to play back,
- Note will be produced when a DTS source is played by selecting the analog input.
- El Stort playing the video colleges.

Press the LERTEN MODE (LSTM.M) key to select the flatoning mode.

The fistering mode settings are stored separately for each input. If the input mode is set to digital auto ("AUTO 1004HO" tights), the receiver selects the optimal fetering mode automatically based on the type of input signal and the speaker settings.

Each press of the LATEN MODE (LETRIN) key awitches the willing as fieled below.

The Hatering mode settings are different departding on the type of input signal.

When the DOLEY DIGITAL along to input:

(The DOLBY DIGITAL, PROLOGIC, or 3 STEPEO indicator lights up.).

- URDLBY DIGITAL: DOLBY DIGITAL gurgoing
 - ®PRO LOGIC: PRO LOGIC aurround
 - 33 STERED: 3-STEREO aurround
 - **(INTEREO: Normal stereo playback)**

When you select DOLEY DISAITAL

		OL BY	H	
--	--	-------	---	--

When the DTS signal is impat (VR-467/RRF-V78300 emly) (The CTS indicator lights up)

e- digre; OTS surround

- (ESTEREO: Normal stereo playback

When the paying signal or the digital signal except for the DOLBY DIGITAL or DTS signal is layer;

 PRO LOGIC: PRO LOGIC surround (The PRO LOGIC indicator lights up)

ES STEREO: 3-STEREO surround (The 3 81 EREO Indicator lights up.)

TETEREO: Normal storeo playback

 If a Coby Digital eight having more channels men the mauritum number of playback channels available using the receiver's current settings is about, the DOWN MRIL redicator on the front penel lights up and downnessing is performed to match the number of available channels.

El Adjust the returns.

None

 Departing on the type of the signator speaker setting, some issuring modes cannot be selected

 When playback is started, the sound may be suffer interrupted before the input source is conformed as Dolby Digital

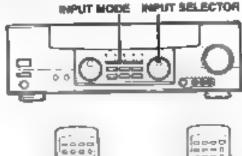
To enjoy Doby Digital (AC-3) surround tax well as at the other instanting modest from a single component, be sure to use a Doby Digital IAC-3) compatible source component. Connect the Doby Digital IAC-3) compatible source component's Duby Digital (AC-3) formet digital sude signal to one of the pactral, early jecks on the back of the receiver. Connect the normal sude signal correctly to the respective component's ALICID picks.

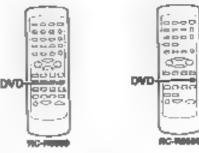
DVD 6-channel playback (vn-eer/ees/knf-y76366/ yeasen/v56300/v45300 enit)

tieing a DVD player or me this equipped with this (6.1) output charmele and the receiver, you can enjoy surround sound playback.

When you try to play a disc other than Dolby Digital (AC-3) such as DTS CD, no sound is produced or, notice may be heard. To evoid this ellusion, make sure that you connect the component to the receiver's DVD 6CH. INPUT (acks through a surround processor which can decode the surround aigher you wont to letter to

Connecting a DMO player which can decode the surmand signal itself is also acceptable.





Propertition

- Corylect your DVD player to the DVD 6ch jacks of the receiver
- . Turn on all other components that will be used.
- Complete "Preparing for surround sound".

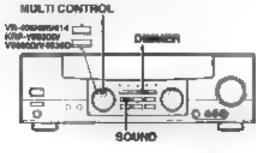
-(10)

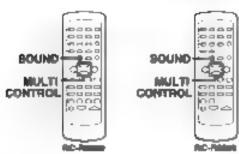
Callect "D9D/Ock" as the legal source.

- If symmetry system B is an when "DVD/6ch" is selected as the input source, it switches off and speaker system A sums an automatically.
- \$ \$elect "SCH PRPT" by prevaling the MAPOT PROTE bay.
- E Start playbook of the DVD sydbooks.
- E Adjust the volume.
 - It is not possible individually to adjust the wolumb level or sound duality (BEY LIP, SOURCE of the superate channels when the receiver is in the DVD 6ch mode. Adjust the volume with the controls of the DVD player.

For the powered subwooter, you can adjust the volume of the subwooter sing the subwooter's own volume control.

Convenient functions





Adjusting the search

You can make further adjustments to the sound while listening to playback the surround mode.

Proce the SOUND her to select the item you want to adjust.

East press switches the estection as listed below. Note that some three are not displayed in certain modes.

- (DBASE flow frequency range sound quality adjustment):
- -132 2/TREE (high frequency range sound quality adjustment) 4 III
- DiCoh (coron: apasiver level adi.terment)
- *DPS (mght surround spesiver level adjustitus)
- EXAM plant surround appearant tevel adjustment)
- (Intermeulips level reformative) WRF(ii)
- ZIMPUT (right level adjustment)
- flows above intention THEREST.

- -011
- Use the MULTI CONTROL to adjust the setting as desired.
 - The adjustment item is displayed for approximately 8 seconds.

Midnight mode (Outby Digital (AC-3) made only)

When watching moview at night you might not be able to raise the volume as loud as normal. Midright mode compresses the dynamic range of privileusly specified parts of the Dolby Digital (AC-3) sound track this source with sudden increases in volume) to minimize the difference in volums between the specified and non-specified parts. This makes it easy. to hear all of the sound track, even when lettening at low volumes.

- Proon the SOUND key several times writt "NiGNT" in displayer.
 - This can be selected only # CD/DVO, VIDEO2 or VIDEO3 is estected. sa the source and the finer mode is not to "DOLEY DIGITAL."

Use the MULTI COSTROL to estent the on or off setting.



- The adjustment nem is displayed for approximately 6 seconds.
- Some Dolby Digital (AC-3) software may not be compatible with the Midright mode.

Diapley dimmer adjustment

The dimmer function lets you select the brightness of the receiver's display. You might find this useful if you deriven your room to writch movies. or listen to music.

Each three you prote the DMMER key, the display brightness. changes enlang the three evaluable settings. Select the brightness level you find most pleasing.



Sükfür LPCM ptoydomic

The receiver to competible with the Sticitz LPCM playback. To play a 95kHz DVD, set the later mode to "STEREO."

 When "96ki-k" appears in the display, press the LISTEN 440DE key. Ithe fater made charges to the STEREO model.

Resetting the Microcomputer

If the microcomputer may maillanction (unit permat be operated, or shows an erronmous display) if the power cord is unphagged while the person in CH, or due to come after enterrul factor. If this happens, execute the following procedure to result the microcomputer and releast the unit to be permat operating condition.

 Please note that residing the reproportional will pleas the contents of the memory and returns the unit to the state it was in when it will the feature.

For U.S.A. and Canada

Unplug the power cord from the well outlet, then plug it back in while holding down the POWER lary.

For other countries

With the power cord plugged in, turn the POWER key OFF. Then, while hatding sown the ON/STANDBY key, press POWER.

Acresidier

The speaker cords are disconnected. • VOLUME is set to the minimum position. • MUTE is ON. • Pris SPEAKERS switches are set to OFF.	A Connect them properly retening to "Connecting the speakers" — Su Adjust the volume to a proper level. Turn OFF the MUTE. — CR Set the SPEAKERS swech(es) to CR — 20
* Speaker cords are short-carculated.	• Turn the power cff. elevates the street circulting, then burn on the power again. —(8)
+ The appealed cord is disconnected	 Connect it properly returning to "Connecting the speakers"
The surround speaker cords and/or the capital speaker cord is disconnected. A surround mode has not been engaged. The surround and/or carrier volume controls are set to the membruis toxel.	Connectal properly reterring to "Convecting the spectrum". Select a surround mode Adjust the special levels using the test tone. -Oil.
The sudio cord from the turnishis is not connected to the PHONO Jacks. The turnishis is not grounded.	Impet the audio cord plugs ascurely into the PHONO jacks. Commet the grounding wire to the GND term, not on the rate panel.
There are many possible causes for this prob- lum, depending on the type of DVD player used.	Set the imput mode to digital manual before starting playback of the Dolby Digital assurce.
* The input made is set to digital manual.	Press the INPUT MODE key to extent to digital euto mode.
* The entreens is copy-guarded.	+ Copy-puerded video eoffwere curvot be re- corded.
◆ The model does not moorporate a DTB decoder.	 DTS securces cannot be reproduced with a mod that does not incorporate a DTS decoder.
	NUTE is ON. No Price SPEAKERS switches are set to OFF. Speaker cords are short-around. The apparent cord is disconnected. The surround speaker cords and/or the opinion speaker cord is disconnected. A surround mode has not been engaged. The surround and/or cardin volume controls are set to the manifest continued to the PHONO Jacks. The surfocial from the turnishing in not connected to the PHONO Jacks. The surfocial in not grounded. There are many possible causes for this problem, depending on the type of DVD player used. The input mode is set to digital manual.

Total

Sadie sintions perviot to received.	 twy anieryna is connected The broadcast band is not set properly. The frequency of the desired station is not tured 	Covered an america Set the broadcast band properly. Tune the frequency of the desired elabor. -GB
hearference.	Nome due to ignition notice from an euromobile. Nome due to inhartenance from an electric appliance. Nome due to a rearby TV ser.	Install the outdoor anteres away from the road. Turn off the power to the appliance. Install the receiver further every from the TV.
A station which was press current be re- unived by pressing the corresponding ru- meric tery.	The preset station belongs to a frequency that cannot be received. The preset marriery was cleared because the power cord had been unplugged for a long period of limb.	Preset a station with a receivable frequency. Preset the station egain.

Rated power output during STEREO operation

100 writis per observed minimum Philis, both observate deferm, at 6 iz from 36 Hz (V79-607), 480-ts (V79-408) to 30 kHz with no more than 6.7% lotal harmonic distortion. (FTC)

Effective power output during SURROUND operation
FRONT (30-2004-447-407, 40-2044-/VR-406, 0.7% T.H.D. at 8.0
one channel driven)
CENTER (20-204)62/VR-407, 40-2044/2/VR-406, 0.7% T.H.D. 61
LI time channel driven)
BURROUND (20-20LHe/VR-407, 40-20ML/VR-408, 0.7% T.H.D.
et # C) one charmet driven)
Total harmonic distortion
Proquency response
CD 10 Mz - 93 MGz, +0 48, -3.0 dB
Bignal to noise ratio (BHFGI)
PHONO (MM)

PHONO (MM)	
CD91 dB	
ingel conditivity / imperiorses	
PHONO (MM)	
CD	
MONITOR IN (VII-106: VIDEOS/MONITOR) 200 mV / 47 kg	
Dulgost fermi / Impedence	
TAPE 980	

TAPE REC	300 WW / 1 RO.
MONITOR OUT (VR-486: VEXEQUIMONITOR)	200 mV / 1 fcz:
PRE OUT (SUBWOOFER)	27/2210
Torre pentral	

AUD/O seption (VIII-405,414)

BASS

Rated power output during STEREO operation

96 wasts (VR-405), FOurtes (VR-414) per obtained infiniteers RBSS, both classrate driven, at 8 3 from 46 fits to 30 lide with no more than 6.7% total furments distortion. (FTC)

CO
Eignal to noise retio (ROP'08)
CO
hjet sensitivity i impedance
CO 200 mW / 47 kg
MONITOR IN (VIDEOSRIGHTOR)
Onliput level / Impedance
TAPE HEC
MONITOR OUT (VIDEOSVIDARIOR)
PRE OUT (BUBWOOPER)

DIGITAL ANDIO section

CONTRACTOR CONTRACTOR	
Barapling traquency	14,1 10to, 40 10to, 1000to
Input fevel / Impedance / wave langth	
Opinica)	1 dBm), 000 nm 430nm
Consid	
VIDEO sestion	
VIDEO Impute / outputs	
VIDED (composite)	1 Vo-e / 78 U
8 VIDEO (VIII-407 doly)	
(Purtiersbreum prigerall)	
(chromhance signal)	0.366 Vp-p / 75 D
•	
FM tener section	
Turking frequency range	07.6 WHz - 100 MHz
Usable senetivity (NONO)	
	Rz OEV., SBIAD 36 d0)
89dB quieting senethrity	
STEREO	H.B. µV (YII QV 41.2 AIH)
Total harmonia distortion (3 kHz)	
MONO	9.0% (86 d8f Input)
STEREO	0.7% (00 cl04 imput)
Olgani to noise ratio (1 kHz, 75 kHz QEV.)	
MONO	75 dis (86 dist input)
Stores apparation (1 (th)	
Sninetivity (s-465 k)kg)	
Proquency response	RHQ, +0.5 dB, -3.9 dB
All tener section	

Tuning fraquency range
10 kHz step manusummunicalisaticalisaticalisatic \$30 kHz - 1,700 kHz
Unable sensibility (20% most., 574 20 dB) 16 pV / (600 y/lim)
Signal in naise ratio (30% med. 1 mV inpul)

GENERAL

70007 COMMENSON (787-414) 2.3 A
(VR-448) 23 A
THE ARTHUR PRODUCTION OF THE PROPERTY AND PR
AC outlet
\$147CHED
Dimensions
H : 143 mm (6-6/6*)
D : 600 mm (16-344*)
Weight (Net)



Temp pentrel EASS __

..... ±10 dB (at 100 its) ±10 dB (at 10 bits)

^{1.} KENMOOD follows a policy of continuous advancements in development. For this resear specifications may be changed without nobice.

^{2.} The full performance may not be exhibited in an extramely cold location (under a weter-freezing temperature)

For ather countries AUDIO section (KRF-V75360/V6836D) Output level / Impediance Ettective power output during STEREO operation 200 mV / 1 hp 140 W + 140 W TAPE REC 160tz, 10% T.H.O., at 8 () Rated power output during ETEREO operation 100 wette per channel minimum MHB, both channels driven, at Tone control 8 () from 40 Mg (KRF-V9030D) , 20Mz (KRF-V7030D) to 28 kHz BASS (For Australia and U.S-Military) ±10 dB (at 100 Hz) with no more than 0.7% total harmonic distortion.(FTC) BASS (Other countries) _____±16 dill (at 80 Hz) Effective power output during SURROUND operation PROOF (19Hz, 19% T.H.O. at 6 () one channel driven) . 145 W + 148 W DIGITAL AUDIO section CENTER (18Hz, 10% T.H.D. at 8 iz one channel driven) 140 W Imput level / Impedence / www length SURROUND (16Hz, 10% T.H.D. at & Clone channel driven) Option) _____(-16 dBm - -21 dBm), 600 mm s36mm 140 W + 146 W 8.5 Vp-p / 79 Q Countries Fraquency response MORO section GD _____ VIDEO Impute / outputs Signal to noise ratio (IHF'66) VIDEO (composite) PHONO (MIN)..... S VIDEO (KRF-V7838O enly) tract sensitivity / impedance 2.5 mW / 27 GO PHONO (MMI) 300 mV / 47 tic) CO FM inver section MONITOR IN (KRF-VIGIOD: VIDEOSRICHITOR) Tuning frequency range ______ 67.6 tests = 140 kilds: Usefule semalitivity (MONO) 300 erV / 47 kΩ Output Invel / Impedence __ 280 mW / 1 (s) TAPE REC **DidB** quieting sensitivity MONITOR OUT (KRF-Vesses) WIDEOSMONTOR) 31.6 W (75 SW 41.2 db) STEREO 200 mW / 1 kΩ Total harmonic distortion (1 titls) PRE OUT (SUBWOOPER) 2 Y / 2.2 hú MONO _______ BLOYL (86 dBf Input) Tome centrel STEREO _____ BASS (For Australia and U.S-Milliary) ±10 dB (xt 100 Hz) Dignal to noise ratio (1 MHz, 75 MHz DEV.) AUDIO section (KRF-V58360) Selectivity (a480 lobs) Effective power output during STEREO operation (1 kHz, 10%, NO) ______ 110 W + 110 W 66 wette channel minimum RMS, both phasenic driven, of 8 () AM issue section from 46 Hz to 20 lets with no more than 0.7% total harmonic Tuning frequency range distortion. (FTC) Effective power output during SURROUND operation PRONT (18Nz, 18% T.H.D. at B D one channel driver) 110 W + 110 W CENTER (1964z, 18% T.H.D. at # D one channel driver) GENERAL. Power consumption SUMMOUND (1995; 10% T.H.D. et 9 () one channel driven): KJW-VANCOOD 110 W + 110 W Ргоционау гоеропов STATISTICS (Cold to Wome) _____ 10 Hz = 83 kHz, +0 dB, -3.0 dB CD Signal to noise ratio (RFF'98) H: 143 mm PHONO (MM) U : 400 mm CD_ Welght (NegKRE-VressDA46080) 7.4 kg ingut genetitivity / impedence (Neg)(GM-V50860) 7.2 to PHONO (1881) _______ & E mV / 27 to

Notice

1. XENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

E. The full performance may not lim scribited in an extremely cold location (under a water-freazing temperature).



For your recerds

Piscord the seriel number, found on the back of the unit, in the special designated on the werranty card, and in the spece provided below. Peter to the model and earial numbers whenever you call upon your design for information or service on this product.

Model	Sprint Number	

VR-407/VR-406/VR-405/VR-414

KRF-V7030D/KRF-V6030D/KRF-V5030D

Correct

Erroné Télécommende (RC-RO800) Correct

Step 3

\$ 00.

s the source POWER (TV.) DVD. CABLE DSS/CDR) to select the input you regis-

s the source POWER /TV.

. DVD. CABLE, DSS/CDR)

and check to see that the

ponent you want to control

ote control units (RC-RO609)

Wrong



Step J

Press the source POWER (TV. VCR. DVD. CABLE, DS8/CDR) key for more than 2 seconds to select the input you registered.



Press the source POWER /TV. VCR. DVD. CABLE, DSS/CDR) key for more than 2 seconds. and check to see that the component you want to control forms on.

unit (VR-405/VR-414/KRF-V5030D)

Remote control units RC-RO509)

Power key (DVD)

Jsed to operate DVD plever. for details, refer to the instruction. Manual of your DVD player.



Power key (DVD)

Used to operate DVD player. For details, refer to the instruction manual of your DVD player.(Press the DVD key for more than 2 sec-Cabno.

P24 (addition)

 (VR-405/414/kRF-V5030f) onlyt When you press the POWER (DVD) key and the DVD player does not lum on, prees the 1 or 2 key during pressing the POWER (DVD) key.

Ftape 3

Appuyez sur la touches POWER de source (TV, VCR, DVD. CABLE, DSS/CDR) pour sélectionner l'entrés que vous avez enregistrée.

P3 E

Aspuvez sur le louches POWER de seurce (TV, VCR, DVD, CABLE, DSS/CDR), puls vérifiez que l'apparell que veus désirer controlor s'alleme.

Etape 3

Appuyez sur la touches POWER de source (TV, VCR, DVD, CABLE, DS8/CDR) pendent plus de 2 secondes pour sélectionner l'entrée que vous avez enragistrée.

P3 E

Aspayaz sur la tauches POWER se seurce (TV, VCR, DVD, CABLE, DSS/CDA) pendent plus de 2 secondes, país vérifiez que l'apparell que vous désirez cantrillar s'alluma.

Appareil principal (VR-405/VR-414/KRF-V5030D)

P7 Télécommende (RC-R0509)

Touche Power (DVD)

Permet d'utiliser un lecteur DVD. Pour plus de détails, reportez-vous au mode d'emploi de votre lecteur DVD

P7 Télécommende (RC-R0509)

Touche Power (DVD)

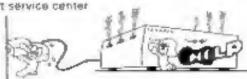
Permet d'utiliser un lecteur DVD. Pour plus de détails, reportez-vous. nu mode d'emploi de votre lecteur DVD. (Appuvez sur la touche DVD pendent plus de 2 secondes.)

P24 (addition)

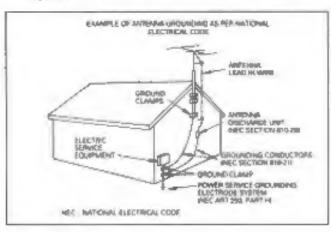
*!VR-405/414/KRF-V5030D uniquement)

Si le lecteur DVD ne se met pas sous tension foreque vous appuyez sur la touche POWER (DVD), appuyez sur le touche 1 ou 2 tout en maintenant la loughe POWER (DVD) enfoncée.

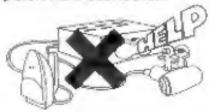
- 13. Lightning For added protection for this appliance during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the well outlet and disconnect the antenna or cable system. This will prevent damage to the appliance due to lightning and power-line surges.
- 14. Absormet sensil If an abnormal small or smoke is detected, immediately turn the power OFF and unplug the appliance from the wall outlet. Contact your dealer or nearest service center.



- 15.Demage requiring service The appliance should be serviced by qualified service personnel when
 - A. The power-supply cord or the plug has been damaged.
 - Objects have fallen, or liquid has been spilled into the appliance.
 - C. The appliance has been exposed to rain or water
 - D. The appliance does not appear to operate normally by following the instruction manual. Adjust only those controls that are covered by the instruction manual as an improper adjustment of other controls may result indamage and will often require extensive work by a qualified technician to restore the appliance to its normal operation.
 - E. The appliance has been dropped, or the enclosure damaged.
 - F. The appliance authibits a marked change in performance
- 16.Servicing The user should not attempt to service the appliance beyond that described in the instruction manual. All other servicing should be referred to qualified service personnel.
- 17. Outdoor antenne grounding If an outside antenne is connected to the appliance, be sure the antenne system is grounded so as to provide some projection egainst voltage surges and built up static charges. Article 810 of the National Electrical Code ANSI/ NFPA 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection III grounding electrodes, and requirements for the grounding electrode. See Figure



- 16. Power lines An outside entenne system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenns system, extreme care should be taken to leap from touching such power lines or circuits as contact with them most be fatal.
- 19.AC outlets Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical appliances, such as an iron or toaster, to it to prevent fire or electric shock.



- Overleading Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- Attachment Do not use attachments not recommended by the apphance manufacturer as they may cause hazards.
- 22. Replacement perts When replacement perts are required, be sure the service technician has used replacement perts specified by the manufacturer or have the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock, or other hereofs.
- 23. Selety sheek Upon completion of any service or repers to this appliance, ask the service technician to perform safety checks to determine that the appliance is in proper operating condition.

Notes:

- Item 3 is not required except for grounded or polarized equipment.
- ftem fill end 18 are not required except for units provided with antenna terminals.
- 3. from 17 complex with UL in the U.S.A.

Please read all of the safety and operating instructions before operating this appliance. Adhere to all warnings on the appliance and in the instruction manual. Follow all the safety and operating instructions. These safety and operating instructions should be retained for future reference.

- Pewer sources The appliance should be connected to a power supply only of the type described in the instruction manual or as marked on the appliance. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For appliances intended to operate from battery power, or other sources, refer to the instruction manual.
- Pewer-cord pretection Power-supply cords should be routed so that they are not likely to be walked on of pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.



- 3. CAUTION Polarization This appliance may be equipped with a polarized alternating-current line plug is plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to lit, contact your electricien to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 4. Ventilation Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the appliance and to protect it from overfleating, and these openings must not be blocked or covered. The appliance should be situated so that its location or position does not interfere with its proper ventilation.

To maintain good ventilation, do not put records or a tablecloth on the appliance. Place the appliance at least 10 cm away from the walls.

Do not use the appliance on a bed, sofa, rug or similar surface that may block the ventilation openings. This appliance should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.



Water and melature – The appliance should not be used near water - for exemple, near a bethtub, washbowt, kitchen sink, laundry tub, in a wet basement, or near a swamming pool, etc.

- Temperature The appliance may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).
- Heat The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
- a. Electric shock Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal objects, such as a hair pin or a needle, comes into contact with the inside of this appliance, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this appliance.



Exclesure removal - Never remove the enclosure.
 If the internal parts are touched accidentally, a serious electric shock might occur.



- 78.Megnetic fields Keep the appliance away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.
- 11. Cleaning Unplug this appliance from the walk outlet before cleaning. Do not use votatile solvents such as sicohol, point thinner, gasoline, or benzine, atc. to clean the cabinet. Use a clean dry cloth.
- 12. Assessation Do not place this appliance on an unstable cart, stand, inpod, bracket, or table. The appliance may fell, causing serious injury to a child or adult, and serious demage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the appliance. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overture.

